Australian Government
Australian Centre for International Agricultural Research

# Understanding the responses of taro and cassava to climate change

## Key details

**Location**
Fiji, Vanuatu

**Duration**
**Start** Aug 2012 **End** Jun 2017

**Budget** AUD 869,386

**Commissioned organisation**
CSIRO

**Partners**
CIRAD/Vanuatu Agricultural Research and Training Centre; Ministry of Agriculture and Food; Forests and Fisheries; Ministry of Primary Industries; Monash University; Secretariat of the Pacific Community

**Project Leader**
Steven Crimp - CSIRO Ecosystem Sciences

**Program** Horticulture

**Project code** HORT/2012/011

## Overview

This project aimed to understand the effect of climate change on Pacific production systems - specifically those based on the staple root crops, taro and cassava. It developed a system to model these crops.

Pacific Island communities, reliant on agriculture-based livelihood systems, are particularly at risk from climate change, due to likely increases in crop failure, new patterns of pests and diseases, lack of appropriate seed and plant material, loss of livestock and potential loss of arable land. Shortfalls in agricultural production resulting from changing export markets, commodity prices, climatic variation, and population growth and urbanisation, have contributed to regional food insecurity concerns.

Several activities are underway in the Pacific region to identify ways to ameliorate existing climate risk and enhance agricultural production. These activities are important to ensure long-term agricultural sustainability, but it is uncertain how effective these strategies will be in the face of a changing and increasingly variable future climate.

This project used an APSIM modelling framework to develop crop modules to understand how specific taro and cassava varieties respond to projected changes in climate in the Pacific, and to identify strategies for farming systems adaptation.

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